# Oregon and Washington State Framework

## Clearinghouse Hydrologic Unit Layer Data Dictionary

**Physical Data Model** Version 1.1

Prepared by the

Washington and Oregon Hydrography Framework Technical Work Groups

April 11, 2003

## **Table of Contents**

| Section 1 – Hydrologic Unit Layer Description      | 1  |
|--|----|
| Hydrologic Unit Layer Description                  | 2  |
| Polygon Attribute Tables: Hydrologic Unit Polygons |    |
| Hydrologic Unit Boundary Polygon Attributes        |    |
| Hydrologic Unit Boundary HUC1 Region Attribute     | 9  |
| Hydrologic Unit Boundary HUC2 Region Attributes    | 10 |
| Hydrologic Unit Boundary HUC3 Region Attributes    | 11 |
| Watershed Boundary HUC5 Region Attributes          | 13 |
| Hydrologic Unit Boundary HUC6 Region Attributes    | 14 |
| Hydrologic Unit Boundary HUC7 Region Attributes    | 15 |
| Arc Lines Description                              | 17 |
| Arc Attribute Table: Hydrologic Unit Polygons      | 18 |
|  |    |

## **Section 1 – Hydrologic Unit Layer Description**

The purpose of the Hydrologic Unit Boundaries dataset is to simultaneously maintain an index representing Level One (1) through Eight (8) Hydrologic Unit Boundaries. This dataset is intended as a tool for water-resource management and planning activities, particularly for site-specific and localized studies, which require the amount of detail provided by a large-scale map. The Hydrologic Unit Boundaries coverage contains attributes for polygons, arcs and seven Arc/Info regions. Hydrologic Unit delineations are closed polygons that encompass all area draining toward the lowest point (called pour point) in the polygon.

To better classify hydrologic units, the dataset is divided into separate size classifications called "Levels" or "Fields," which define drainage areas of specific size within a network of hydrologic units. The largest classification of this kind is called a 1st Level hydrologic unit (also referred to as Region). An example of a 1st Level hydrologic unit is the Columbia River Basin Region, which defines the drainage network for the majority of the States of Oregon and Washington. As part of the ranking system, 1st Level units can be subdivided into smaller 2nd Level units, which can be further subdivided into 3rd Level units and so on. These divisions currently may continue until much smaller 8th Level units are reached. The methods for delineating these units are based on the Interagency Guidelines on Delineation of Hydrologic Unit and Subwatershed Hydrologic Unit Boundaries (http://wwwga.usgs.gov/gis/iag.html).

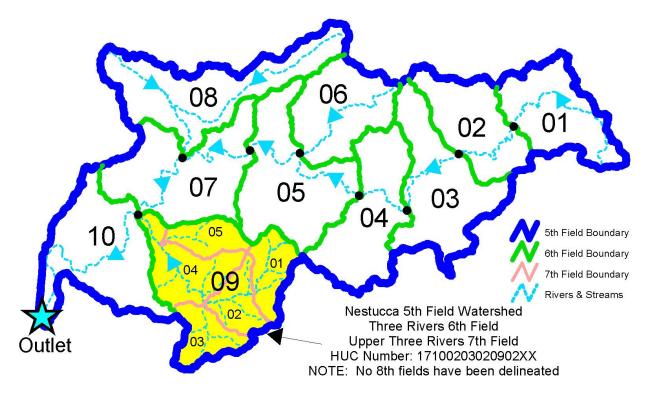
Several nested hydrologic unit boundaries have been incorporated to create this geospatial dataset, which allow for mapping to the 8th Level. The dataset was developed by delineating the boundary lines on 1:24,000 base maps and digitizing the delineated lines. Digital Elevation Model data was used in part of the process to establish preliminary boundaries. The Hydrologic Unit Code attached to each delineated polygon is linked to the attribute data, which can contain information on area in acres, non-contributing area, state(s) the Hydrological Unit (HU) falls within, name for 5th and 6th level HU, 5th and 6th level code for downstream hydrologic unit and hydrologic unit modifications. Each line has attributes that describe the HU level (1-6), originating source for that line and a metadata ID number that links the line to its associated metadata file.

The following procedures were used to produce this dataset:

- Hydrologic units were incorporated into this dataset from an aggregate of pre-existing HU's.
- A number of new Hydrological Unit Boundaries were delineated using flow lines and basins computed from 10- and 30-meter horizontal resolution Digital Elevation data based on flow derived from the elevation grid to determine potential pour points.
- The DEM data is derived from hypsography represented on 1:24000 USGS topographic quadrangles.
- Additional hydrography data was used as a template to control pourpoint locations for the delineated HU's.

Examples have been listed for all attributes where possible, as have all relevant attribute domains. For those instances where domains are sequential unique whole numbers that are automatically generated, this value has been omitted.

## **Hydrologic Unit Layer Description**



Example Explanation: When delineating 7th level units, all units within a given 6th level unit have the same first 12 digits.

Starting at the uppermost end of the drainage, the first 7th level hydrologic unit would be assigned the code "01" for the 13th and 14th digits. When combined with the 6th level code, the full Hydrologic Unit Code in the above example would be 17100203020901XX. The next downstream unit would be assigned the code "02" for its 13th and 14th digits, making its full HUC code be 17100203020902XX and so on. The "XX" at the end of the example tells users that 8th level units have not been delineated in this area.

For a full description of layer attributes, please see the "Pacific Northwest Hydrologic Unit Boundaries Dataset Standards" document located at <a href="http://www.reo.gov/gis/projects/watersheds/Data-Standards2.htm">http://www.reo.gov/gis/projects/watersheds/Data-Standards2.htm</a>.

Hydrologic Unit Boundary Polygon Attributes

| ITEM NAME      | ITEM DEFINITION |
|----------------|-----------------|
| AREA           | 8,18,F,5        |
| PERIMETER      | 8,18,F,5        |
| REOHUC_V13#    | 4,5,B           |
| REOHUC_V13-ID  | 4,5,B           |
| ACRES          | 12,12,N,4       |
| HUC_NUM        | 16,16,C         |
| HUC_TYPE       | 8,8,C           |
| REGION_NAME    | 30,30,C         |
| SUBREGION_NAME | 30,30,C         |
| BASIN_NAME     | 30,30,C         |
| SUBBASIN_NAME  | 30,30,C         |
| WATERSHED_NAME | 80,80,C         |
| SUBWAT_NAME    | 80,80,C         |
| CATCHMENT_NAME | 80,80,C         |
| SUBCATCH_NAME  | 80,80,C         |
| OLD_HUCNUM     | 16,16,C         |
| STATES         | 12,12,C         |
| NCONTRIB_DA    | 12,12,N,4       |
| DS_HUC5        | 10,10,C         |
| DS_HUC6        | 12,12,C         |
| HUC_MOD        | 80,80,C         |
| COMMENT        | 100,100,C       |
| REGION         | 2,2,C           |
| SUBREGION      | 4,4,C           |
| BASIN          | 6,6,C           |
| SUBBASIN       | 8,8,C           |
| WATERSHED      | 10,10,C         |
| SUBWAT         | 12,12,C         |
| CATCHMENT      | 14,14,C         |
| SUBCATCH       | 16,16,C         |
| FIRST_FIELD    | 2,2,C           |
| SECOND_FIELD   | 2,2,C           |
| THIRD_FIELD    | 2,2,C           |
| FOURTH_FIELD   | 2,2,C           |
| FIFTH_FIELD    | 2,2,C           |
| SIXTH_FIELD    | 2,2,C           |
| SEVENTH_FIELD  | 2,2,C           |
| EIGHTH_FIELD   | 2,2,C           |

## **ACRES**

Area of polygon in GIS acres. This item is to be generated from the internal ArcInfo item called "Area."

Example: 34476.917

## **HUC NUM**

Hydrologic Unit Field Code- In order to identify an area, be it 1st through Nth Levels, each is assigned the combination of Levels which comprise it. Starting at the uppermost end of the drainage, the first 7th level hydrologic unit would be assigned the code 01 for the 13th and 14th digits.

Example: 170102150104XXXX

## **HUC TYPE**

Hydrologic Unit Types. This item allows users to query hydrologic units based on composition type. Information is presented as a running string where each individual character of the string represents the composition type of a particular unit (e.g.- character number "1" represents the composition type of a "1st level" unit, character number "2" represents the composition type of a "2nd level" unit, etc). Where a hydrologic unit level has not been delineated or the type has yet to be classified, an "X" serves as a placeholder. This is an optional item that may be populated for 1st through 8th level units where deemed necessary.

**Example: Closed Basin** 

**Domain Value: T** 

Domain Value Definition: True, pure, or "classic" hydrologic units are land areas having all the surface drainage within its boundary converging at a single point.

**Domain Value: C** 

Domain Value Definition:

Composite hydrologic units, or remnant areas are drainage areas typically formed as the residual areas after delineation of classic watersheds. The most common example of a remnant area is the small triangular wedge between the boundaries of adjacent hydrologic units flowing into the same side of another stream.

**Domain Value: F** 

Domain Value Definition: Frontal hydrologic units are areas that include multiple, non-convergent rivers. Frontal units would most likely be related to hydrologic units feeding into the Pacific Ocean or Columbia River.

**Domain Value: X** 

Domain Value Definition: Unclassified hydrologic units

**Domain Value: S** 

Domain Value Definition: **Domain Value: R**Domain Value Definition

## **REGION NAME**

1st Field Hydrologic Unit Naming Protocol

Example: PACIFIC NORTHWEST

SUBREGION\_NAME

2nd Field Hydrologic Unit Naming Protocol **Example: UPPER COLUMBIA** 

## **BASIN NAME**

3rd Field Hydrologic Unit Naming Protocol

**Example: SPOKANE** 

## SUBBASIN NAME

4th Field Hydrologic Unit Naming Protocol

**Example: PRIEST** 

#### WATERSHED NAME

5th Field Hydrologic Unit Naming Protocol

**Example: COLUMBIA RIVER/LYNCH COULEE** 

## SUBWAT\_NAME

6th Field Hydrologic Unit Naming Protocol

**Example: SOUTH SALMO RIVER** 

## CATCHMENT NAME

7th Field Hydrologic Unit Naming Protocol

## SUBCATCH\_NAME

8th Field Hydrologic Unit Naming Protocol

## OLD\_HUCNUM

Historic Hydrologic Unit Number. Because of the national requirement for sequential downstream numbering of hydrologic units, there may be instances where the new hydrologic unit numbers may not be consistent with some historical hydrologic unit numbers. With the renumbering of the hydrologic units, a link may be needed to assist users in identifying hydrologic units based on the historical hydrologic unit numbers.

**Example: 17020010** 

## **STATES**

State(s) containing HU polygon. This item should include the names of all states that a hydrologic unit falls within. Use the 2-digit postal code abbreviation and sort the states in alphabetical order, with a coma separating each state.

**Example: ID** 

**Domain Value: OR** 

Domain Value Definition: Oregon

**Domain Value: CA** 

Domain Value Definition: California

**Domain Value: NV** 

Domain Value Definition: Nevada

**Domain Value: ID** 

Domain Value Definition: Idaho

**Domain Value: WA** 

Domain Value Definition: Washington

## NCONTRIB\_DA

Drainage areas that do not flow toward the outlet of any hydrologic unit are considered non-contributing areas. Such areas may be due to glaciated plains (potholes), enclosed basins, karst topography, playas, cirques, depression lakes, dry lakebeds, or similar landforms.

Example: 325.9362

#### DS HUC5

Fifth Level Downstream HUC. This item represents the hydrologic unit code of the 5th level hydrologic unit receiving the majority of the downstream flow. Outlets created by ditching or other artificial drainage are not to be considered.

Example: 1701021502

## DS\_HUC6

Sixth Level Downstream Hydrologic Unit Code. This item represents the hydrologic unit code of the 6th level hydrologic unit receiving the majority of the downstream flow. Outlets created by ditching or other artificial drainage are not to be considered.

Example: 170102150106

## HUC\_MOD

Hydrologic Unit Modifications- This item should contain information about hydrologic unit modifications to natural overland flow (that affect boundary) unique to the 5th or 6th field level unit delineated in an area of interest. This may include information on the type of structure, date of construction or other features that may influence surface water flow. In the attribute field, identify from most significant to least significant modification(s).

**Example: SD** 

**Domain Value: SC** 

Domain Value Definition: Stormwater Canal

**Domain Value: BC** 

Domain Value Definition: Barge Canal

**Domain Value: PD** 

Domain Value Definition: Pipe Diversion

**Domain Value: KA** 

Domain Value Definition: Karst

**Domain Value: OC** 

Domain Value Definition: Overflow Channel

**Domain Value: ID** 

Domain Value Definition: Irrigation Ditch

**Domain Value: SD** 

Domain Value Definition: Stormwater Ditch

**Domain Value: CD** 

Domain Value Definition: Channel Diversion

**Domain Value: LE** 

Domain Value Definition: Levee

**Domain Value: OT** 

Domain Value Definition: Other

**Domain Value: IT** 

Domain Value Definition: Interbasin Transfer

**Domain Value: CB** 

Domain Value Definition: Closed Basin

**Domain Value: NC** 

Domain Value Definition: Non-Contributing

**Domain Value: NM** 

Domain Value Definition: No Modifications

## COMMENT

Any additional information that pertains to the hydrologic unit's history or general characteristics that cannot be adequately described in previous items.

**Example: Waldo Lake** 

#### **REGION**

1st Field Hydrologic Unit Code

Example:17

#### **SUBREGION**

2nd Field Hydrologic Unit Code

Example:1701

#### **BASIN**

3rd Field Hydrologic Unit Code **Example: 170102** 

## **SUBASIN**

4th Field Hydrologic Unit Code

**Example: 17010215** 

## **WATERSHED**

5th Field Hydrologic Unit Code

Example: 1701021501

## **SUBWAT**

6th Field Hydrologic Unit Code

Example: 170102150104

## **CATCHMENT**

7th Field Hydrologic Unit Code

Example: 170102150104XX

## SUBCATCH

8th Field Hydrologic Unit Code

Example: 170102150104XXXX

#### FIRST FIELD

2-DIGIT IDENTIFIER

Example: 17

## SECOND\_FIELD

2-DIGIT IDENTIFIER **Example: 01** 

THIRD\_FIELD

2-DIGIT IDENTIFIER

Example: 02

## FOURTH\_FIELD

2-DIGIT IDENTIFIER

Example: 15

## FIFTH\_FIELD

2-DIGIT IDENTIFIER

Example: 01

## SIXTH\_FIELD

2-DIGIT IDENTIFIER

Example: 04

## SEVENTH\_FIELD

2-DIGIT IDENTIFIER

## **EIGHT\_FIELD**

2-DIGIT IDENTIFIER

The following box lists the attribute items found in the REOHUCV13.PATHUC1 table. These attributes pertain to region features depicting Level 1 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Hydrologic Unit Boundary HUC1 Region Attribute

| ITEM NAME   | ITEM DESCRIPTION |
|-------------|------------------|
| AREA        | 8,18,F,5         |
| PERIMETER   | 8,18,F,5         |
| HUC1#       | 4,5,B            |
| HUC1-ID     | 4,5,B            |
| ACRES       | 12,12,N,4        |
| HUC_NUM     | 16,16,C          |
| HUC_TYPE    | 8,8,C            |
| REGION_NAME | 30,30,C          |
| STATES      | 12,12,C          |
| NCONTRIB_DA | 12,12,N          |
| HUC_MOD     | 80,80,C          |
| COMMENT     | 100,100,C        |
| REGION      | 2,2,C            |
| FIRST_FIELD | 2,2,C            |

## HUC1#

An internal region identifier; value is assigned by software.

#### **HUC1-ID**

The following box lists the attribute items found in the REOHUCV13.PATHUC2 table. These attributes pertain to region features depicting Level 2 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Hydrologic Unit Boundary HUC2 Region Attributes

| ITEM NAME      | ITEM DEFINITION |
|----------------|-----------------|
| AREA           | 8,18,F,5        |
| PERIMETER      | 8,18,F,5        |
| HUC2#          | 4,5,B           |
| HUC2-ID        | 4,5,B           |
| ACRES          | 12,12,N,4       |
| HUC_NUM        | 16,16C          |
| HUC_TYPE       | 8,8,C           |
| REGION_NAME    | 30,30,C         |
| SUBREGION_NAME | 30,30,C         |
| STATES         | 12,12,C         |
| NCONTRIB_DA    | 12,12,N,4       |
| HUC_MOD        | 80,80,C         |
| COMMENT        | 100,100,C       |
| REGION         | 2,2,C           |
| SUBREGION      | 4,4,C           |
| FIRST_FIELD    | 2,2,C           |
| SECOND_FIELD   | 2,2,C           |

## HUC2#

An internal region identifier; value is assigned by software.

## **HUC2-ID**

The following box lists the attribute items found in the REOHUCV13.PATHUC3 table. These attributes pertain to region features depicting Level 3 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Hydrologic Unit Boundary HUC3 Region Attributes

| ITEM NAME      | ITEM DEFINITION |
|----------------|-----------------|
| AREA           | 8,18,F,5        |
| PERIMETER      | 8,18,F,5        |
| HUC3#          | 4,5,B           |
| HUC3-ID        | 4,5,B           |
| ACRES          | 12,12,N,4       |
| HUC_NUM        | 16,16,C         |
| HUC_TYPE       | 8,8,C           |
| REGION_NAME    | 30,30,C         |
| SUBREGION_NAME | 30,30,C         |
| BASIN_NAME     | 30,30,C         |
| STATES         | 12,12,C         |
| NCONTRIB_DA    | 12,12,N,4       |
| HUC_MOD        | 80,80,C         |
| COMMENT        | 100,100,C       |
| REGION         | 2,2,C           |
| SUBREGION      | 4,4,C           |
| BASIN          | 6,6,C           |
| FIRST_FIELD    | 2,2,C           |
| SECOND_FIELD   | 2,2,C           |
| THIRD_FIELD    | 2,2,C           |

## HUC3#

An internal region identifier; value is assigned by software.

## **HUC3-ID**

The following box lists the attribute items found in the REOHUCV13.PATHUC4 table. These attributes pertain to region features depicting Level 4 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Hydrologic Unit Boundary HUC4 Region Attributes

| ITEM NAME      | ITEM DEFINITION |
|----------------|-----------------|
| AREA           | 8,18,F,5        |
| PERIMETER      | 8,18,F,5        |
| HUC4#          | 4,5,B           |
| HUC4-ID        | 4,5,B           |
| ACRES          | 12,12,N,4       |
| HUC_NUM        | 16,16,C         |
| HUC_TYPE       | 8,8,C           |
| REGION_NAME    | 30,30,C         |
| SUBREGION_NAME | 30,30,C         |
| BASIN_NAME     | 30,30,C         |
| SUBBASIN_NAME  | 30,30,C         |
| STATES         | 12,12,C         |
| NONCONTRIB_DA  | 12,12,N,4       |
| HUC_MOD        | 80,80,C         |
| COMMENT        | 100,100,C       |
| REGION         | 2,2,C           |
| SUBREGION      | 4,4,C           |
| BASIN          | 6,6,C           |
| SUBBASIN       | 8,8,C           |
| FIRST_FIELD    | 2,2,C           |
| SECOND_FIELD   | 2,2,C           |
| THIRD_FIELD    | 2,2,C           |
| FOURTH_FIELD   | 2,2,C           |

## HUC4#

An internal region identifier; value is assigned by software.

## **HUC4-ID**

## **Polygon Attribute Tables: Watershed Polygons**

**Table Name: REOHUCV13.PATHUC5** 

The following box lists the attribute items found in the REOHUCV13.PATHUC5 table. These attributes pertain to region features depicting Level 5 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Watershed Boundary HUC5 Region Attributes

| ITEM NAME      | ITEM DESCRIPTION |
|----------------|------------------|
| AREA           | 8,18,F,5         |
| PERIMETER      | 8,18,F,5         |
| HUC5#          | 4,5,B            |
| HUC5-ID        | 4,5,B            |
| ACRES          | 12,12,N,4        |
| HUC_TYPE       | 8,8,C            |
| REGION_NAME    | 30,30,C          |
| SUBREGION_NAME | 30,30,C          |
| BASIN_NAME     | 30,30,C          |
| SUBBASIN_NAME  | 30,30,C          |
| WATERSHED_NAME | 80,80,C          |
| OLD_HUCNUM     | 16,16,C          |
| STATES         | 12,12,C          |
| NCONTRIB_DA    | 12,12,N,4        |
| DS_HUC5        | 10,10,C          |
| DS_HUC6        | 12,12,C          |
| HUC_MOD        | 80,80,C          |
| COMMENT        | 100,100,C        |
| REGION         | 2,2,C            |
| SUBREGION      | 4,4,C            |
| BASIN          | 6,6,C            |
| SUBBASIN       | 8,8,C            |
| FIRST_FIELD    | 2,2,C            |
| SECOND_FIELD   | 2,2,C            |
| THIRD_FIELD    | 2,2,C            |
| FOURTH_FIELD   | 2,2,C            |
| FIFTH_FIELD    | 2,2,C            |
| WATERSHED      | 10,10,C          |

## HUC5#

An internal region identifier; value is assigned by software.

#### HUC5-ID

The following box lists the attribute items found in the REOHUCV13.PATHUC6 table. These attributes pertain to region features depicting Level 6 Hydrologic Units. Attribute definitions already included in the

pertain to region features depicting Level 6 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Hydrologic Unit Boundary HUC6 Region Attributes

| ITEM NAME      | ITEM DEFINITION |
|----------------|-----------------|
| AREA           | 8,18,F,5        |
| PERIMETER      | 8,18,F,5        |
| HUC6#          | 4,5,B           |
| HUC6-ID        | 4,5,B           |
| ACRES          | 12,12,N         |
| HUC_TYPE       | 8,8,C           |
| REGION_NAME    | 30,30,C         |
| SUBREGION_NAME | 30,30,C         |
| BASIN_NAME     | 30,30,C         |
| SUBBASIN_NAME  | 30,30,C         |
| WATERSHED_NAME | 80,80,C         |
| SUBWAT_NAME    | 80,80,C         |
| OLD_HUCNUM     | 16,16,C         |
| STATES         | 12,12,C         |
| NCONTRIB_DA    | 12,12,N,4       |
| DS_HUC5        | 10,10,C         |
| DS_HUC6        | 12,12,C         |
| HUC_MOD        | 80,80,C         |
| COMMENT        | 100,100,C       |
| REGION         | 2,2,C           |
| SUBREGION      | 4,4,C           |
| BASIN          | 6,6,C           |
| SUBBASIN       | 8,8,C           |
| WATERSHED      | 10,10,C         |
| FIRST_FIELD    | 2,2,C           |
| SECOND_FIELD   | 2,2,C           |
| THIRD_FIELD    | 2,2,C           |
| FOURTH_FIELD   | 2,2,C           |
| FIFTH_FIELD    | 2,2,C           |
| SIXTH_FIELD    | 2,2,C           |
| SUBWAT         | 12,12,C         |

## HUC6#

An internal region identifier; value is assigned by software.

#### **HUC6-ID**

The following box lists the attribute items found in the REOHUCV13.PATHUC7 table. These attributes pertain to region features depicting Level 7 Hydrologic Units. Attribute definitions already included in the REOHUCV13.PAT table have been omitted here and should be referenced in pages 4-7 of this Data Dictionary.

Hydrologic Unit Boundary HUC7 Region Attributes

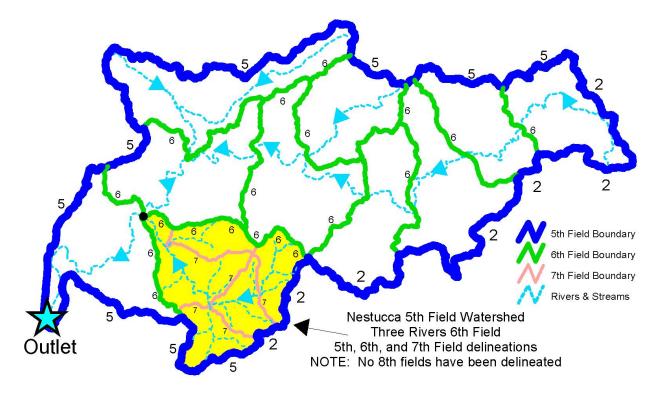
| ITEM NAME      | ITEM DEFINITION |
|----------------|-----------------|
| AREA           | 8,18, F, 5      |
| PERIMETER      | 8,18,F,5        |
| HUC7#          | 4,5,B           |
| HUC7-ID        | 4,5,B           |
| ACRES          | 12,12,N,4       |
| HUC_NUM        | 16,16, C        |
| HUC_TYPE       | 8,8,C           |
| REGION_NAME    | 30,30,C         |
| SUBREGION_NAME | 30,30,C         |
| BASIN_NAME     | 30,30,C         |
| SUBBASIN_NAME  | 30,30,C         |
| WATERSHED_NAME | 80,80,C         |
| SUBWAT_NAME    | 80,80,C         |
| CATCHMENT_NAME | 80,80,C         |
| OLD_HUCNUM     | 16,16,C         |
| STATES         | 12,12,C         |
| NCONTRIB_DA    | 12,12,N         |
| DS_HUC5        | 10,10,C         |
| DS_HUC6        | 12,12,C         |
| HUC_MOD        | 80,80,C         |
| COMMENT        | 100,100,C       |
| REGION         | 2,2,C           |
| SUBREGION      | 4,4,C           |
| BASIN          | 6,6,C           |
| SUBBASIN       | 8,8,C           |
| WATERSHED      | 10,10,C         |
| SUBWAT         | 12,12,C         |
| CATCHMENT      | 14,14,C         |
| FIRST_FIELD    | 2,2,C           |
| SECOND_FIELD   | 2,2,C           |
| THIRD_FIELD    | 2,2,C           |
| FOURTH_FIELD   | 2,2,C           |
| FIFTH_FIELD    | 2,2,C           |
| SIXTH_FIELD    | 2,2,C           |
| SEVENTH_FIELD  | 2,2,C           |

## HUC7#

An internal region identifier; value is assigned by software.

## HUC7-ID

## **Arc Lines Description**



Example Explanation: In the example above, line segments that are only coded with the largest hydrologic unit line classification. In cases where a line segment is simultaneously shared between a 2nd level and a 5th level units, the line is coded with a "2." Where a line segment is shared between a 5th, 6th, and 7th level units, the line is given the code of "5", and so on. When 8th level units are eventually delineated, the same process described above should be applied.

This coverage is in a regions (ESRI) format; therefore, this coverage simultaneously holds boundary lines ranging from 1st through 8th level hydrologic units, many boundary lines are shared between different hydrologic unit classifications.

## Arc Attribute Table: Hydrologic Unit Polygons

Arc Attribute Table:

| ITEM NAME     | ITEM DEFINITION |
|---------------|-----------------|
| FNODE#        | 4,5,B           |
| TNODE#        | 4,5,B           |
| LPOLY#        | 4,5,B           |
| RPOLY#        | 4,5,B           |
| LENGTH        | 8,18,F          |
| REOHUC_V13#   | 4,5,B           |
| REOHUC_V13-ID | 4,5,B           |
| HUC_LEVEL     | 1,1,I           |
| LINESOURCE    | 20,20,C         |
| LINEVER       | 1,1,C           |
| LINEDATE      | 10,10,C         |
| LINEORG       | 10,10,C         |
| METADATA_ID   | 1,1,I           |
| COMMENT       | 100,100,C       |

## FNODE#

An internal region identifier; value is assigned by software.

#### **TNODE#**

An internal region identifier; value is assigned by software.

## LPOLY#

An internal region identifier; value is assigned by software.

#### RPOLY#

An internal region identifier; value is assigned by software.

## **LENGTH**

Length of feature in internal units.

Example: 1 meter

## REOHUC\_V13#

An internal region identifier; value is assigned by software.

## REOHUC\_V13-ID

Region identifier assigned by user. This item is not used, nor is it changed. Presence is required by software.

Table Name: reohucv13.AAT

## HUC LEVEL

This item is used to identify the hydrologic unit groupings a given line segment belongs to. This item is used to identify the hydrologic unit groupings a given line segment belongs to. Primary order is always given to the largest hydrologic unit classification of any shared line segment (e.g. when a hydrologic unit boundary line is shared between a 5th level unit and a 6th level unit, the line receives a code of 5).

Example: 5

**Domain Value: 1** 

Domain Value Definition: 1st Level Unit Boundary

Domain Value: 2

Domain Value Definition: 2nd Level Unit Boundary, NOT Shared with a 1st Level Unit

Boundary

**Domain Value: 3** 

Domain Value Definition: 3rd Level Unit Boundary, NOT Shared with 1st or 2nd Level

Unit Boundary **Domain Value: 4** 

Domain Value Definition: 4th Level Unit Boundary, NOT Shared with 1st - 3rd Level Unit

Boundary

Domain Value: 5

Domain Value Definition: 5th Level Unit Boundary, NOT Shared with 1st - 4th Level Unit

Boundary

Domain Value: 6

Domain Value Definition: 6th Level Unit Boundary, NOT Shared with 1st - 5th Level Unit

Boundary

**Domain Value: 7** 

Domain Value Definition: 7th Level Unit Boundary, NOT Shared with 1st - 6th Level Unit

Boundary

**Domain Value: 8** 

Domain Value Definition: 8th Level Unit Boundary, NOT Shared with 1st - 7th Level Unit

Boundary

#### LINESOURCE

Information related to the original spatial data source from which the boundary line was derived. This item captures information related to the original spatial data source from which the boundary line was derived. In determining which code to use, preference should be given to the primary source employed to determine the boundary lines position. All line segments should be broken with a node where line sources change.

**Example: DRG24** 

**Domain Value: DRG24** 

Domain Value Definition: USGS 1:24,000 Digital Raster Graphics (DRG)

**Domain Value: TVC23** 

Domain Value Definition: USGS 1:24,000 Tagged Vector Contours (TVC)

**Domain Value: DEM10** 

Domain Value Definition: Derived from 10 Meter Digital Elevation Model (Surface modeling)

**Domain Value: DEM30** 

Domain Value Definition: Derived from 30 Meter Digital Elevation Model (Surface modeling)

**Domain Value: DLG** 

Domain Value Definition: USGS Digital Line Graph

**Domain Value: UNK** 

Domain Value Definition: Unknown

#### **LINEVER**

Line Edit Verification- Indicates which level in a series of quality control checks the hydrologic boundary has undergone prior to being accepted as part of the finalized dataset. \* Only verification levels of 4 and 5 are included in the regional dataset. This item may be used in local offices to track the progress of edits as organizations delineate new hydrologic units and move toward regional and national certification of those units.

Example: 2

**Domain Value: 1** 

Domain Value Definition: Initial Draft Line

**Domain Value: 2** 

Domain Value Definition: Line accuracy certified by local hydrologist

**Domain Value: 3** 

Domain Value Definition: Line accuracy certified by ALL local participating organizations

**Domain Value: 4** 

Domain Value Definition: Line accuracy certified by Pacific Northwest stewards

**Domain Value: 5** 

Domain Value Definition: Line accuracy certified by National stewards

#### LINEDATE

Date that the last line edit was performed. This item is used to record the last date a spatial edit was performed to a given line segment. The format should be in: YYYY/MM/DD.

Example: 2002/11/15

#### **LINEORG**

The organization who performed the last spatial edit to a given line segment. This item designates the organization who performed the last spatial edit to a given line segment. Depending on the variety of sources used, every line segment within a single hydrologic unit may have a different organization code. The codes are to be applied to individual line segments, not hydrologic unit polygons.

**Example: USBLM-EUG** 

**Domain Value: CLAMS** 

Domain Value Definition: Coastal Landscape Analysis and Modeling Study

**Domain Value: IRICC** 

Domain Value Definition: Intergovernmental Resource Information Coordinating Council

**Domain Value: LVWFBR** 

Domain Value Definition: Longview Fiber Company

**Domain Value: NMFS** 

Domain Value Definition: National Marine Fisheries Service

**Domain Value: NRCS** 

Domain Value Definition: Natural Resources Conservation Service

**Domain Value: NWIFC** 

Domain Value Definition: Northwest Indian Fisheries Commission

**Domain Value: ODEQ** 

Domain Value Definition: OR Dept. of Environmental Quality

**Domain Value: ODF** 

Domain Value Definition: OR Dept. of Forestry

**Domain Value: REO** 

Domain Value Definition: REO (Regional Ecosystem Office). These are lines that were

created from REO coverage last updated October 1998.

**Domain Value: SNPSN** 

Domain Value Definition: Simpson Timber Company

**Domain Value: UNKNOWN** 

Domain Value Definition: Unknown input organization

**Domain Value: USACE** 

Domain Value Definition: U.S. Army Corps of Engineers

**Domain Value: USBLM-BUR** 

Domain Value Definition: U.S. Bureau of Land Management - BURNS

Domain Value: USBLM-CSB

Domain Value Definition: U.S. Bureau of Land Management - COOS BAY

**Domain Value: USBLM-EUG** 

Domain Value Definition: U.S. Bureau of Land Management - EUGENE

**Domain Value: USBLM-LKE** 

Domain Value Definition: U.S. Bureau of Land Management - LAKEVIEW

**Domain Value: USBLM-MED** 

Domain Value Definition: U.S. Bureau of Land Management - MEDFORD

**Domain Value: USBLM-OSO** 

Domain Value Definition: U.S. Bureau of Land Management - OREGON STATE OFFICE

**Domain Value: USBLM-PNV** 

Domain Value Definition: U.S. Bureau of Land Management - PRINEVILLE

**Domain Value: USBLM-RSB** 

Domain Value Definition: U.S. Bureau of Land Management - ROSEBURG

**Domain Value: USBLM-SLM** 

Domain Value Definition: U.S. Bureau of Land Management - SALEM

**Domain Value: USBLM-VAL** 

Domain Value Definition: U.S. Bureau of Land Management - VALE

Domain Value: USBR

Domain Value Definition: U.S. Bureau of Reclamation

**Domain Value: USBPA** 

Domain Value Definition: U.S. Bonneville Power Administration

**Domain Value: USEPA-R10** 

Domain Value Definition: U.S. Environmental Protection Agency - Region 10

**Domain Value: USFS-DES** 

Domain Value Definition: U.S. Forest Service - DESCHUTES

**Domain Value: USFS-FRE** 

Domain Value Definition: U.S. Forest Service - FREMONT

**Domain Value: USFS-KAL** 

Domain Value Definition: U.S. Forest Service - KALMATH

**Domain Value: USFS-MAL** 

Domain Value Definition: U.S. Forest Service - MALHEUR

**Domain Value: USFS-MTH** 

Domain Value Definition: U.S. Forest Service - MT HOOD

**Domain Value: USFS-OCH** 

Domain Value Definition: U.S. Forest Service - OCHOCO

**Domain Value: USFS-ROG** 

Domain Value Definition: U.S. Forest Service - ROGUE RIVER

**Domain Value: USFS-R6** 

Domain Value Definition: U.S. Forest Service - REGION SIX SUPERVISORS OFFICE

**Domain Value: USFS-SIS** 

Domain Value Definition: U.S. Forest Service - SISKIYOU

**Domain Value: USFS-SIU** 

Domain Value Definition: U.S. Forest Service - SIUSLAW

**Domain Value: USFS-SIX** 

Domain Value Definition: U.S. Forest Service - SIX RIVERS

**Domain Value: USFS-UMA** 

Domain Value Definition: U.S. Forest Service - UMATILLA

**Domain Value: USFS-UMP** 

Domain Value Definition: U.S. Forest Service - UMPQUA

**Domain Value: USFS-WAL** 

Domain Value Definition: U.S. Forest Service - WALLOWA WHITMAN

**Domain Value: USFS-WIL** 

Domain Value Definition: U.S. Forest Service - WILLAMETTE

**Domain Value: USFS-WIN** 

Domain Value Definition: U.S. Forest Service - WINEMA

**Domain Value: USFWS** 

Domain Value Definition: U.S. Fish and Wildlife Service

**Domain Value: USGS** 

Domain Value Definition: U.S. Geological Survey

**Domain Value: USGS-NMD** 

Domain Value Definition: U.S. Geological Survey - National Mapping Division

**Domain Value: USNPS** 

Domain Value Definition: U.S. National Park Service

**Domain Value: WEYHSR** 

Domain Value Definition: Weyerhaeuser Company

## METADATA\_ID

Metadata ID is a code that identifies which metadata file applies to the arc. In many cases, there is one metadata file. However, in some cases more than one metadata file may be created to identify different groups and/or procedures used to produce the lines. These separate metadata files may be identified for each separate arc.

**Example: Record Sequence Number** 

#### COMMENT

This item may include any additional information that pertains to the hydrologic unit's history or general characteristics that cannot be adequately described in previous items.

**Example: STILL NEEDS VERIFICATION**